Nepean Rubber & Plastics
Product Information

CrC
Wear Plate









What is Wear Plate?

The basic product comprises a Mild Steel base plate upon which a highly abrasive resistant overlay is applied. The overlay consists primarily of very hard Chromium Carbide particles imbedded in a softer matrix – the combination of which yields a macro hardness of 600 BHN or 60 Rc.

What is its Purpose?

To resist wear caused by abrasion and impact, thus prolonging the working life of essential plant, equipment, & machinery.

What Benefits do you Gain?

- **Increased Wear Life** – Our unique manufacturing process produces a high chromium clad **CrC Wear Plate**, the metallurgy, chemical analysis & hardness of which ensures it is the best available in combating wear.
- **Minimise Your Downtime** – **CrC Wear Plate's** longer life extends the interval between shutdowns for maintenance allowing for more efficient planning of production and reduced downtime.
- **Reduce Your Maintenance – CrC Wear Plate** with advanced & flexible fabrication methods will protect your plant from major damage & wear, and reduces the need for costly repair.
- **Increase Your Production** – **CrC Wear Plate's** longer service life increases your plant's availability & productivity.
- **Lower Your Costs** – **CrC Wear Plate** often out wears mild steel up to 30:1, and martensitic (heat treated) steel up to 12:1, substantially reducing the need for wear plate replacement & therefore delivering much better value for money.
- **Keep Your Plant Looking Good** – **CrC Wear Plate** protects the structural integrity of your plant so that it remains in shape with minimal (if any) primary damage.
- **Increase Your Profits** – **CrC Wear Plate** protects your plant from wear & structural damage, therefore significantly increasing service life & reducing the need for expensive overhaul & replacement.

Major Industry Applications

- **Agricultural** – cultivator tynes, conveyors, plough shares
- **Brick** - pan scrapers, pathways & tyres
- **Cement** – chutes, cyclones, mixer blades, valve plates & rings
- **Coal Preparation** – bins, chutes, hoppers, pipes, screens
- **Dredging** – buckets, conveyors, screens
- **Earthmoving** – blades, buckets, excavators, scrapers, shovels
- **Glass Making** – bucket elevators, chutes
- **Mining** – bins, buckets, feeders, ore cars, skips, skirts, truck bodies
- **Ore Handling & Processing** – bins, chutes, feeders, hoppers
- **Quarrying** – chutes, deflectors, discharge & impact plates, screens

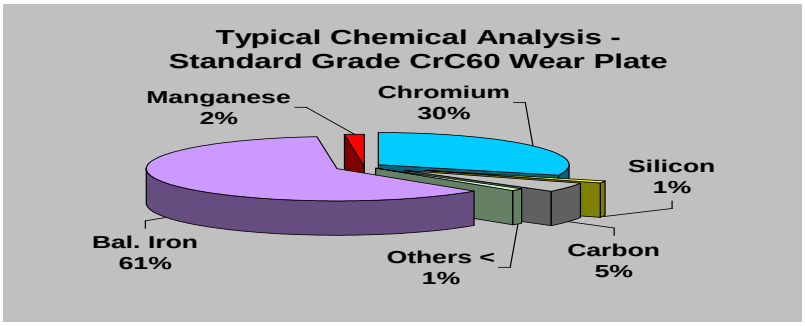
CrC Wear Plate - Product Data

Single Overlay Wear Plate

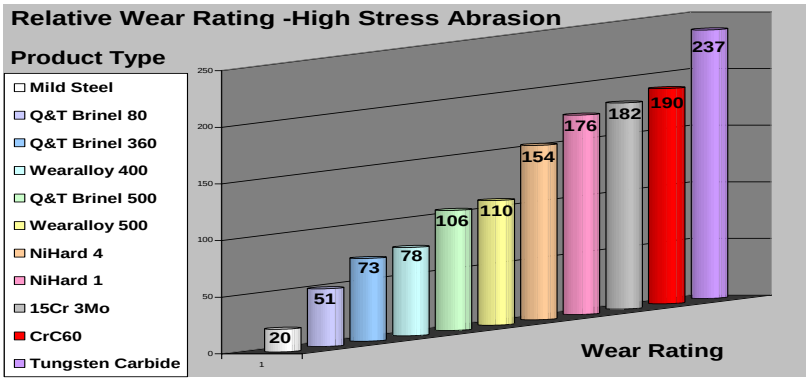
Type	Hard Facing Overlay mm	M/Steel Base Plate mm	Total Approx. Thick mm	Weight Approx. p/SQM kgs
4 on 6	4	6	10	81.2
5 on 6	5	6	11	89.3
6 on 6	6	6	12	97.4
4 on 8	4	8	12	97.4
5 on 8	5	8	13	105.6
6 on 8	6	8	14	113.7
7 on 8	7	8	15	121.8
8 on 8	8	8	16	129.9
4 on 10	4	10	14	113.7
5 on 10	5	10	15	121.8
6 on 10	6	10	16	129.9
7 on 10	7	10	17	138.0
8 on 10	8	10	18	146.2
9 on 10	9	10	19	154.3
10 on 10	10	10	20	162.4
4 on 12	4	12	16	129.9
5 on 12	5	12	17	138.0
6 on 12	6	12	18	146.2
7 on 12	7	12	19	154.3
8 on 12	8	12	20	162.4
9 on 12	9	12	21	170.5
10 on 12	10	12	22	178.6
12 on 12	12	12	24	194.9
9 on 16	9	16	25	203.0
10 on 16	10	16	26	211.1
12 on 16	12	16	28	227.4
10 on 20	10	20	30	243.6
12 on 20	12	20	32	259.8
6 on 25	6	25	31	251.7

Double Overlay Wear Plate

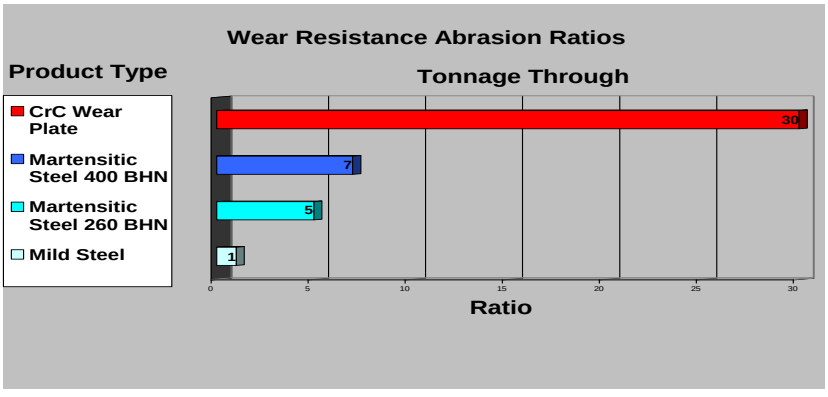
8 on 6	8	6	14	113.7
9 on 6	9	6	15	121.8
10 on 6	10	6	16	129.9
12 on 6	12	6	18	146.2
10 on 8	10	8	18	146.2
12 on 8	12	8	20	162.4
15 on 10	15	10	25	203.0
17 on 10	17	10	27	219.2
20 on 10	20	10	30	243.6
17 on 12	17	12	29	235.5
20 on 12	20	12	32	259.8



The above shows the Typical Chemical Analysis for our Standard Grade **CrC60 Wear Plate**. A variety of other alloys may be added to the mixture, such as molybdenum, vanadium, boron, nickel & tungsten, to produce speciality Wear plates for specific needs e.g. high heat resistance, fine particle dust abrasion & increased impact resistance.



NATA approved & certified procedures for abrasion & impact produced the above typical Wear Resistance ratings. However, any rating is dependent on a number of variables – type of test, load applied, speed variations, calibration anomalies etc. 'Field' results vary markedly according to those variables and others, such as material type, flow speed & consistency, support structures, particle shape & size etc. Standard **CrC60 Wear Plate** has achieved results as high as 30:1 ratio over Mild Steel, representing a very significant saving in costs.



The **HARDNESS** of **CrC60 Standard Grade Wear Plate** ranges from 59-62 on the Rockwell C Hardness scale (ie 670 Brinel or 720 Vickers) Hardness in isolation, however, is not a true indication of wear resistance but it is a guide to the quality & effectiveness of the wear plate. Deposition method & carbide structure are also highly important.

The CrC method produces the most consistent & uniform wear plate available for analysis, microstructure, hardness, flatness & bonding.